

RURAL DISTRICT COUNCIL

OF

BASFORD.

ANNUAL REPORT

FOR

1897.

BY

GEORGE BURY WRAY, M.R.C.S., D.P.H.,

MEDICAL OFFICER OF HEALTH.

Nottingham :

PRINTED BY S. E. HACKETT LTD., MAYPOLE YARD, LONG ROW.

1898.

RURAL DISTRICT COUNCIL

OF

BASFORD.

ANNUAL REPORT

FOR

1897.

BY

GEORGE BURY WRAY, M.R.C.S., D.P.H.,

MEDICAL OFFICER OF HEALTH.

Nottingham :

PRINTED BY S. E. HACKETT LTD., MAYPOLE YARD, LONG ROW.

1898.

Rural District Council of Basford.

CHAIRMAN - - R. G. HANSON, Esq., J.P.

VICE-CHAIRMAN - WM. WALKER, Esq.

<i>Parishes.</i>	<i>District Councillors.</i>	<i>Parishes.</i>	<i>District Councillors.</i>
Annesley & Felley	- Mr. M. LYON	Greasley	- - Mr. D. T. GREEN
Awsorth	- - ,, W. BUXTON	Kimberley	- - ,, R. G. HANSON
Barton	- - - Rev. C. A. HODGSON	Lambley	- - ,, T. MARRIOTT
Bestwood Park	- Mr. J. H. BRADWELL	Lynby	- - - ,, J. MACHIN
Bilborough	- - ,, R. MOORE	Newstead	- - ,, J. B. SMITH
Bradmore	- - ,, T. WALKER	Nuthall	- - ,, W. B. HANSON
Brinsley	- - ,, W. TAYLOR	Papplewick	- - ,, T. E. SWIFT
Bunny	- - - ,, T. B. SMEETON	Ruddington	- - ,, R. GUNN
Burton Joyce	- ,, W. J. CULLEN	Selston	- - - ,, E. BRIGGS
Calverton	- - ,, W. RENWICK	Shipley	- - - ,, P. WALKER
Clifton	- Rev. H. W. WYNNE-FFOULKES	Stoke Bardolph	-
Codnor	- - - Mr. T. FARNSWORTH	Strelley	- - ,, W. OLDERSHAW
Codnor Park	- - ,, A. F. WRIGHT	Thrumpton	- - ,, M. SAVIDGE
Colwick	- -	Trowell	- - ,, G. PLATIS
Cossall	- - - ,, E. PAXTON	Wilford (South)	- ,, W. BEECROFT
Gamston	- - ,, W. WALKER	Wollaton	- - ,, C. W. WRIGHT
Gedling	- - - ,, H. TAYLOR	Woodborough	- ,, F. HENRY
Gotham	- Rev. F. A. WODEHOUSE		

TO THE CHAIRMAN AND MEMBERS OF THE RURAL DISTRICT
COUNCIL OF BASFORD.

Report.

GENTLEMEN,

The following is my Report for 1897.

THE DISTRICT.

The Rural District of Basford consists of 36 parishes—33 in Nottinghamshire and 3 in Derbyshire. To meet the requirements of the several County Councils, I have divided this report into two parts, the first relates to the County of Nottingham, and the second to that of Derby.

During the year several changes have taken place in the representation of the parishes. At the election in April, Messrs. W. Taylor, D. T. Green, and R. G. Hanson were returned for the three divisions of Greasley parish, while the Rev. F. A. Wodehouse, and Messrs. W. B. Hanson and F. Henry were elected for Gotham, Nuthall, and Woodborough respectively. Mr. R. Moore now represents the parish of Bilborough, owing to the death of the late member, Mr. J. Burton. There are also vacancies at Colwick, Mr. Heath having resigned; and Stoke Bardolph in consequence of the painfully sudden death of Mr. Avis.

PART I.

THE NOTTS. PORTION OF THE DISTRICT.

The following Table shows the parishes, areas, inhabited houses, and the populations of the Sub-districts, estimated to the middle of 1897 :—

Sub-District.		Parishes included.	Acres.	Inhabited Houses, Census 1891.	Population Census, 1891	Estimated Population 1897.
No.	Name.					
1—Greasley	{	Brinsley	915	275	1423	1634
		Kimberley	736	938	4798	5763
		Selston	3318	1067	5267	6027
		Annesley and Felley	3538	263	1418	1393
		Greasley	6359	953	4922	5913
2—Ilkeston	{	Cossall	987	180	829	1194
		Trowell	1621	78	414	409
3—Basford		Wollaton	2097	126	654	618
4—Bulwell	{	Bilborough	1098	44	210	220
		Strelley	1069	42	204	174
		Awsorth	367	244	1247	1414
		Nuthall	1348	122	618	702
		Bestwood Park	3729	116	736	783
5—Arnold	{	Lynby	1488	57	310	304
		Newstead... ..	3258	179	1036	1080
		Papplewick	1986	71	384	420
		Calverton	3424	280	1199	1170
		Woodborough ..	1945	195	768	698
		Lambley	2174	176	729	679
6—Carlton	{	Burton Joyce	1388	202	877	1040
		Gedling	1918	120	526	540
		Stoke Bardolph ..	1115	40	188	195
		Colwick	1340	108	480	710
		Gamston	448	17	94	90
7—Wilford	{	Ruddington	2990	537	2370	2239
		Bradmore	1253	63	244	222
		Bunny	2137	63	239	225
		Gotham	2563	253	1134	1200
		Thrumpton	1014	37	141	129
		Barton	1564	56	246	228
		Clifton-cum-Glapton	1921	87	391	397
		Wilford	1521	113	519	520
Totals			62629	7102	34615	38330

The District is divided for sanitary purposes into two Divisions. No. 1, or Western Division, is in charge of Mr. W. Darley, of Kimberley, whilst Mr. S. Maylan, of 91, Noel Street, Nottingham, looks after No. 2. The following table gives the parishes, area and population of each division:—

No. 1 DIVISION (Mr. Darley).

	Area.	Population Census, 1891			Area.	Population Census, 1891
Awsorth ...	367	... 1247	Nuthall ...	1348	... 618	
Cossall ...	987	... 829	Selston ...	3318	... 5267	
Greasley ...	6359	... 4922	Trowell ...	1621	... 414	
Brinsley ...	915	... 1423		—	—	
Kimberley ...	736	... 4798		15651	19518	

No. 2 DIVISION (Mr. Maylan).

	Area.	Population Census, 1891			Area.	Population Census, 1891
Annesley ...	3125	... 1374	Lambley ...	2174	... 729	
Barton ...	1564	... 246	Lynby ...	1488	... 310	
Bestwood Park	3729	... 736	Newstead ...	3258	... 1036	
Billborough...	1098	... 210	Papplewick ...	1986	... 384	
Bradmore ...	1253	... 244	Ruddington ...	2990	... 2370	
Bunny ...	2137	... 239	Stoke Bardolph	1115	... 188	
Burton Joyce	1388	... 877	Strelley ...	1069	... 204	
Calverton ..	3424	... 1199	Thrumpton ...	1014	... 141	
Clifton ...	1921	... 391	Wilford (South)	1521	... 519	
Colwick ...	1340	... 480	Wollaton ...	2097	... 654	
Felley ...	413	... 44	Woodborough	1945	... 768	
Gamston ...	448	... 94		—	—	
Gedling ...	1918	... 526		46978	15097	
Gotham ...	2563	... 1134				

Mr. Wm. Renwick, of Daybrook, continues to act as School Attendance Officer for the District; and the Inspection of Canal Boats and also of Dairies and Cowsheds is carried out by Messrs. Darley and Maylan, each in his respective Division.

The Sanitary Officers attend at the Public Offices, Nottingham Road, Basford, every Friday Morning, from 10 to 12.30, to receive complaints, confer on matters which have arisen in connection with the work, and arrange visits of inspection, &c.

VITAL STATISTICS.

Tables of Statistics are placed at the end, viz :—A. and B. required by the Local Government Board and the County Councils, and the Tables 1 to 5 recommended by the Society of Medical Officers of Health. These latter refer to the Nottinghamshire portion of the District only. There are also tables giving the Meteorological conditions at different points in and around the District.

Statistics not belonging to the District and quoted for comparison are those for England and Wales (less the 100 Towns) and are derived from the “Quarterly Returns” of the Registrar-General, which, as they are averaged, are liable to slight discrepancies when compared with those given in his “Annual Report.” The difference, however, will not cause serious error, or greatly affect the conclusions to be derived therefrom.

THE POPULATION is estimated on the supposition that the rate of increase or decrease in the different Sub-districts shown by the last census to have obtained during the preceding intercensal period, will continue during the present one; this means of estimation is liable to considerable error in a District so widely differing in character as yours, but is probably the best to adopt, as nothing short of a Local Census would arrive at an accurate estimate.

In the Coal Mining Districts where new houses are rapidly springing up, the increase is most marked, while in the Agricultural districts the population is either at a stand-still or shows a decrease, and very few building operations are in progress.

MARRIAGES.—The number of persons married was 592. This corresponds to a Marriage rate of 15·4 per 1000 of population, and is an increase on the 12·5 rate of 1896.

BIRTHS.—1143 births were registered during the year. Of these 535 were males and 563 females. Among the males 26, and among the females 19, were illegitimate.

Their registration was distributed over the four quarters of the year as follows :—

MALES.					FEMALES.				
		Legitimate.		Illegitimate.		Legitimate.		Illegitimate.	
1st quarter	...	143	...	7	...	138	..	3	
2nd	„	125	...	4	...	127	...	3	
3rd	„	113	...	4	...	153	...	7	
4th	„	154	...	11	...	145	...	6	
		<hr/>		<hr/>		<hr/>		<hr/>	
Totals	...	535		26		563		19	

The births during the five years immediately preceding were as follows :—

Year.	Number of Births.			
1896	1382
1895	2013
1894	1808
1893	2009
1892	1914

The Natural increase, *i.e.*, the excess of births over deaths, was 540, and the birth rate 29·8 per 1000. This rate is 2·4 below the rate in 1896.

DEATHS.—The corrected number of deaths is 603, and gives a death rate of 15·73 per 1000, *i.e.*, ·6 above the rate for 1896, and equal to the average for the past 10 years; it is ·6 below the death-rate for England and Wales (less the 100 towns) *viz.*, 16·4.

The numbers occurring in each quarter of the year and in the 6 preceding years are as follows :—

	1891	1892	1893	1894	1895	1896	1897
1st Quarter ...	230 ...	280 ...	208 ..	225 ...	293 ...	153 ...	183
2nd „ ...	251 ...	218 ...	199 ...	177 ...	228 ...	141 ...	134
3rd „ ...	168 ...	199 ...	228 ...	118 ...	186 ...	160 ...	141
4th „ ...	220 ...	257 ...	201 ...	184 ...	206 ...	196 ...	145
	---	---	---	---	---	---	---
	869	954	836	704	913	650	603

The following rates for 1897 are for comparison :—

Death rate for England and Wales	...	...	...	17·4
„ „ 33 Great Towns	...	...	...	19·1
„ „ 67 other Town Districts...	...	...	...	17·2
„ „ England and Wales <i>less</i> the 100 Towns	...	...	...	16·4
„ „ London	...	...	...	18·2
„ „ Nottingham	...	...	...	18·8

The Infant mortality is slightly better than in 1896, and the mortality of those under 5 years also shows an improvement. The numbers during the past 5 years are given below :—

		Deaths under 1 year.		Deaths under 5 years.
1893	...	300	...	396
1894	...	251	...	338
1895	...	195	...	418
1896	...	210	...	279
1897	...	164	...	230

The **INFANT DEATH-RATE** was 143·48 per 1000 registered births, as compared with 151·95 in 1896 ; 271 per 1000 total deaths ; and 4·2 per 1000 living.

PHTHISIS (Consumption).—This disease caused 47 deaths, *i.e.*, 7 more than in 1896 : the death-rate was 1·2 per 1000 living.

CANCER caused 31 deaths in 1897 ; a decrease of two on the figures for 1896 : the death-rate was ·8 per 1000 living.

DEATHS IN PUBLIC INSTITUTIONS numbered 15, viz. :—Basford Workhouse, 13 ; County Asylum, 2. I am indebted to Mr. W. Turnbull and Dr. Aplin, for furnishing these particulars.

INQUESTS.—Coroner's Inquests were held in 32 cases (as compared with 46 in 1896).

The age periods were :—

Under 1 yr.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-65 yrs.	65 yrs. upwards.
2	2	3	10	11	4

The following were returned as death causes :—

Drowned	...	...	...	...	...	10
Burned	...	...	...	...	...	4
Run over by Cart	...	...	...	...	...	3
Syncope and Heart Disease	...	...	...	...	...	2
Pneumonia and Exposure	...	...	...	...	...	2
Inflammation of Bowels	...	...	...	...	...	2
Killed on Railway	...	...	..	...	...	1
Concussion from fall	...	...	...	...	...	1
Cut throat (suicide)	...	...	...	...	...	1
Poisoned	„	...	...	...	...	1
Drowned	„	...	...	...	...	4
Other injuries	...	...	...	...	...	1
						<hr/> 32

UNCERTIFIED DEATHS.—Twenty-seven deaths have been registered as “not certified” during the year, as compared with 32 in 1896. The following is a classification :—

Uncertified Deaths.						
Causes.			Age-periods.			
Debility from Birth		1				
Premature	„	1	...	0—1 yrs.	...	11
Convulsions	...	8	...	1—5	„	2
Heart Disease	...	6	...	5—15	„	—
Bronchitis	...	2	...	25—65	„	7
Apoplexy	...	2	...	65 upwards		7
Diarrhoea	...	1				—
Whooping Cough	...	1				27
Natural Causes	...	4				
Exhaustion	...	1				
						<hr/> 27

Table showing the number and distribution of Inquests held, and the uncertified deaths recorded during 1897.

REGISTRATION SUB-DISTRICT.	INQUESTS held in the District during the year 1897.					DEATHS recorded as "uncertified" during the year 1897.				
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Greasley ...	2	2	1	4	9	5	2	1	6	14
Ilkeston ...	1	0	1	1	3	1	0	0	2	3
Basford ...	2	0	1	1	4	1	0	0	0	1
Bulwell ...	1	0	0	1	2	0	0	0	0	0
Arnold ...	1	0	0	1	2	1	1	0	2	4
Carlton ...	1	2	3	1	7	1	0	0	0	1
Wilford ...	0	2	1	2	5	2	1	0	1	4
Totals ...	8	6	7	11	32	11	4	1	11	27
Rate per 100... total deaths.	4.3	4.4	4.9	7.5	5.3	6.0	3.0	.7	7.5	4.1
Percentage England & Wales.	6.3	6.5	5.8	6.5	6.2	2.3	2.1	1.7	2.1	2.1

ZYMOTIC DEATHS.—68 deaths are recorded as occurring from the seven principal Zymotic diseases, viz. :—(1) Small-pox, (2) Scarlet Fever, (3) Diphtheria, (4) Fevers (including Typhus, Enteric or Typhoid), and other continued fevers, (5) Measles, (6) Whooping Cough, and (7) Diarrhoea.

The **ZYMOTIC DEATH-RATE**, derived from the above-mentioned diseases was 1.77 per 1000 living, *i.e.*, .38 above that of the previous year. The Zymotic death-rate for England and Wales (less the 100 Towns) was 1.62 per 1000 living.

Further particulars of Zymotic Mortality are given in the following table :—

DISEASES.	Total Deaths from Zymotic Diseases, during						Annual Average of 10 years, 1887-1896.	Proportion of Deaths to 1000 Deaths in 10 Years	Proportion of Deaths to 1000 Deaths in 1897.
	1892.	1893.	1894.	1895.	1896.	1897.			
Small-Pox ... ..	...	2	...	...	...	...	·2	·24	0·0
Measles	39	5	3	20	22	3	17·1	20·83	4·97
Scarlet Fever	17	7	7	6	2	2	8·6	10·48	3·31
Diphtheria	5	8	7	6	6	4	4·9	5·97	6·63
Whooping Cough ...	35	21	11	15	12	25	16·4	19·98	41·45
Typhus Fever... ..	...	...	...	...	...	...	...	...	...
Typhoid or Enteric Fever	15	17	6	14	9	16	14·9	18·15	26·53
Simple continued Fever ... ..	...	1	1	...	...	...	·4	·48	0·0
Diarrhœa	27	46	9	34	9	18	27·8	33·87	29·86
TOTALS ...	138	107	44	95	60	68	90·3	110·0	112·75

A.—NOTIFIABLE ZYMOTIC DISEASES.—

The diseases notified in this District are those enumerated in the Infectious Diseases Notification Act (1889), viz., Small-pox, Cholera, Diphtheria, Membranous Croup, Erysipelas, the disease known as Searlatina or Scarlet Fever, and the Fevers known by any of the following names :—Typhus, Typhoid, Enteric, Relapsing, Continued or Puerperal. The Act has been in force since January 1st, 1890.

The following Tables show the monthly occurrence of these diseases, and the deaths recorded :—

Cases of Notifiable Diseases occurring in each month of 1897.

Month.	Scarlet Fever.	Diph'teria & Memb. Croup.	Enteric Fever.	Erysipe- las.	Contin- ued Fever.	Puerpe- ral Fever.	Small- pox	Cholera	Totals.
January -	2	...	5	1	...	...	...	...	8
February -	1	...	3	3	...	...	...	...	7
March -	2	2	3	2	...	...	...	...	9
April -	5	2	3	2	...	...	...	...	12
May -	2	...	5	2	...	...	...	...	9
June -	5	1	10	3	...	1	...	...	20
July -	7	...	24	3	...	...	...	...	34
August -	8	1	1	3	...	...	...	...	13
September -	12	2	3	4	...	1	...	...	22
October -	30	...	7	10	...	...	...	...	47
November -	5	1	7	4	...	1	...	...	18
December -	13	...	...	11	...	...	...	...	24
Totals -	92	9	71	48	0	3	0	0	223

Deaths from Notifiable cases in each month of 1897.

Month.	Scarlet Fever.	Diph'teria & Memb. Croup.	Enteric Fever.	Erysipe- las.	Puerpe- ral Fever.	Cholera	Totals.
January -	...	...	1	...	1	...	2
February -	...	...	2	...	...	...	2
March -	...	3	...	...	...	...	3
April -	...	...	1	...	...	...	1
May -	...	...	...	1	...	...	1
June -	...	...	2	...	1	...	2
July -	...	...	2	...	...	...	2
August -	...	...	4	...	...	...	4
September -	1	1	...	...	...	...	2
October -	...	...	1	...	...	...	1
November -	...	...	3	...	1	...	4
December -	1	...	...	...	...	...	1
Totals -	2	4	16	1	2	0	25

The cost of notification during the year has amounted to £27 17s. 6d. ;
or an average of about 14s. 6d. per 1000 of the population.

The table below shows the cases notified, and the deaths since adoption of the Act in 1890 :—

Notified Cases in :—		Scarlet Fever.	Diphtheria & Mem. Group	Enteric Fever.	Erysipelas.	Continued Fever.	Peurperal Fever.	Small-pox.	Cholera.	Totals.
..	1890	202	17	102	34	...	5	...	...	360
..	1891	252	12	91	61	1	...	...	...	417
..	1892	138	14	81	57	1	2	4	...	297
..	1893	161	58	210	54	3	5	10	...	501
..	1894	184	42	51	45	1	4	1	...	328
..	1895	195	36	122	59	...	7	1	1	421
..	1896	127	18	107	39	2	3	1	..	297
..	1897	92	9	71	48	...	3	...	...	223
Deaths from Notifi- able Diseases in										
..	1890	6	1	19	3	...	1	...	...	30
..	1891	19	3	13	3	..	2	...	...	40
..	1892	17	5	15	1	...	2	...	...	40
..	1893	7	9	17	3	1	5	2	...	44
..	1894	7	10	6	3	...	3	...	...	29
..	1895	6	7	14	4	...	2	...	1	34
..	1896	2	6	9	..	...	1	...	...	18
..	1897	2	4	16	1	...	2	...	...	25

DISINFECTION.—On receipt of a notification I send a leaflet of “Rules for the Prevention of the spread of Infectious Diseases” and one of “Rules for the admission of patients into the Basford Sanatorium,” together with an addressed post-card to the occupier of the house in which the disease has occurred. I also inform the Inspector, in whose Division the case exists, and if it be one, which it is desirable should be isolated in Hospital, I visit it immediately myself, with a view to early removal. On the post-card being returned, signed by the Doctor in attendance, the house is visited and disinfected by an Officer of the Council. The usual plan adopted is still to fumigate with Sulphurous Acid, but in certain cases use is made of the Geneste-Herschler sprayer, and Perchloride of Mercury solution (1 in 1000) in addition to the sulphur fumigation. I hope eventually to supplement this means of disinfection by the removal of beds and bedding to the Sanatorium for Steam Disinfection.

During the year, 175 cards were sent out, and of these 138 were returned and the houses disinfected.

SCARLET FEVER.—92 cases were notified (as compared with 127 in 1896) with two deaths, giving a case-mortality of 2·17 per cent, and a death rate of ·05 per 1000. The death-rate was ·12 in England and Wales (less the 100 towns).

The ages at death were 3 and 8 years, and the deaths occurred at Newthorpe and Westwood.

The disease was present in the District during each month of the year, but did not assume Epidemic form till September, when a large and sudden increase in the number of cases took place, chiefly in Kimberley, Greasley and Selston. The epidemic probably spread through Eastwood from Heanor as a centre, where the disease was prevalent from the middle of the year.

DIPHTHERIA AND MEMBRANOUS CROUP.—9 cases of these diseases were notified, with 4 deaths, giving a case-mortality of 44·4 per cent, and a death-rate of ·10 per 1000. Two deaths occurred at Woodborough, one at Awsworth, and one at Kimberley.

ENTERIC FEVER.—71 cases were notified with 16 deaths, as compared with 107 cases and 9 deaths in 1896. Seven of the deaths occurred in the Sanatorium. The case-mortality was 22·5 per cent, and the death-rate ·4 per 1000. 36 of the cases with 8 deaths occurred in the District generally, and 35 cases with 8 deaths, occurred in Newstead, where an epidemic broke out in May, and continued during June and July, 28 cases occurring in those months. As I have already presented a special report to you on the subject of this epidemic, I will only add, that the drainage of the Village has been relaid at better gradients, all panter pits done away with, proper trapped gullies put down, and all dead ends of drains ventilated and provided with flushing chambers; the old privy-middens also are being gradually pulled down, and re-built at greater distances from the houses, and in accordance with your new bye-laws; so that one result of the local epidemic will be an improvement in the Sanitary condition of the Village, which, added to its wholesome and constant water supply, and efficient little irrigation farm, will mark it as a Model Colliery Village.

ERYSIPELAS.—48 cases were notified, and one at Selston proved fatal.

PUERPERAL FEVER.—3 cases were notified, and one at Brinsley, and one at Jacksdale proved fatal.

B.—NON-NOTIFIABLE ZYMOTIC DISEASES.—

MEASLES.—The wide-spread epidemic of this disease which prevailed in the District in the later months of 1896, continued during the earlier part of 1897. The chief parishes affected being Trowell and Kimberley. 3 deaths occurred (including one at Basford Workhouse). The death-rate was .07 per 1000.

WHOOPING COUGH followed closely in the wake of Measles, and was wide-spread in the District during the first two quarters. 25 deaths occurred, mostly among infants, and all were complicated by lung affections; 7 were in Kimberley, 5 in Brinsley, 4 in Selston parish, 4 in Greasley parish, and 1 each in Colwick, Calverton, Thrumpton, Burton Joyce, and Papplewick. The death-rate was .65 per 1000.

DIARRHŒA caused 18 deaths, as compared with 9 in 1896. 11 of the deaths occurred in infants under 12 months, and three in old people. The death-rate was .46 per 1000.

COMPARATIVE TABLE.

Annual Death-rate per 1000 living.										
		Total Deaths.	Principal Zymotic Diseases.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Small-Pox.
England & Wales, less 100 towns	1897	16.4	1.62	.29	.12	.19	.31	.14	.57	...
Basf'd Rl. Dist.	1897	15.73	1.77	.07	.05	.10	.65	.40	.46	...
„ „	1896	15.14	1.72	.36	.10	.10	.27	.25	.61	...

THE SANATORIUM has been in use for the isolation of patients during the whole of the year, 5 remained in from 1896, and 20 cases of Enteric Fever and 1 of Scarlet Fever were admitted from Newstead, 1 of Enteric and 1 of Scarlet Fever from Nuthall, 3 of Scarlet Fever from Ruddington, 2 from Awsworth, and 1 each from Clifton, Bestwood Park, Colwick and Woodborough; also 1 case of Enteric Fever from Gotham. Total, 38 cases under treatment, of these 7 proved fatal (all Enteric Fever) 29 were discharged cured, and two remained under treatment at the end of the year. The average duration in

Hospital of the Scarlet Fever cases was 53·5 days, of the Enteric Fever cases (recoveries) 60 days, (fatal cases) 15·5 days. Of the notified cases of Scarlet and Enteric Fever 19 per cent. were isolated in the Sanatorium.

GENERAL.

By far the greater part of the surface of the District is occupied by the Trias, or new red sandstone formation, the two divisions of which—the Kenper and the Bunter—form broad bands several miles across. The Permian rocks occupy a narrow area along the western border of the Bunter beds, followed by a patch of coal measures—an easterly extension of the Derbyshire coal-field. There are also the drift deposits and the alluvium of the river valleys.

With the exception of the river valleys which are flat, the configuration of the District is gently undulating, the highest point being not more than 600 ft. above sea-level; it is watered by many small brooks, more or less polluted by receiving crude sewage from the hamlets near which they flow.

The District is essentially rural in character, the density of the population being less than 1 person per acre. The male population is chiefly employed in the collieries which abound in the north and west portions of the District; whilst in the south and east, agriculture and framework knitting are the chief occupations followed. The younger members of the community generally find employment at the lace and hosiery factories which are developing in the villages.

WATER.—The supply of the District is a subject that demands your earnest consideration. The recent severe epidemics of Enteric Fever in the Country have shewn how appalling and far reaching this disease may become when spread by means of a contaminated water supply, and have drawn from the Local Government Board a circular letter on the subject “Water Supplies in Districts not within limits of supply of Water Companies.” In this letter the Board “call the attention of the Council to the subject of the Water supply of their District; and desire to impress upon them the importance of taking the matter into their serious consideration, with the object of guarding their District against dangers the gravity of which has been sufficiently shown by recent examples. Not only are the Council under a responsibility for the wholesomeness of the water which they themselves supply, but they should by careful inquiry make themselves acquainted

with the sources, nature and quality of the various supplies in all parts of their district, and in every case in which the result of their inquiries is unsatisfactory, should take all such steps as may be within their powers, with the view of supplementing or improving the supplies. The Board would observe generally that accurate information should be procured, if not already available, in such matters as the following :—

- I. Where water is derived from gathering grounds or from springs.
- II. Where water is derived from deep wells.
- III. Where water is derived from shallow wells.

“The Board also trust that the Council will not fail to give their most careful attention to this subject,” and “where needed, carry out such necessary works as the circumstances of the case may require.”

I have quoted at some length from this letter, as it is a subject I feel many are deeply interested in.

Your duties, powers, obligations, and liabilities with regard to water supply are set forth in Sections 51 to 70 of the Public Health Act, of 1875 ; and the Public Health (Water) Act, of 1878.

PUBLIC HEALTH ACT OF 1875.—Under Section 51, you *may* provide any part of your district with a supply of water proper and sufficient for public and private purposes, and for those purposes may, (1) construct and maintain water works. (2) Take on lease or hire any water works, and (3) Contract with any person for a supply of water. If you do not avail yourselves of this power where water is required and you can procure it, you will be in fault, and proceedings may be taken under Section 299. Under Section 55. If you do provide a supply of water it *shall* be pure and wholesome. Section 62. If on report of your Surveyor that *any house* is without a proper supply of water, and such supply can be *furnished thereto* at a reasonable cost, you *shall* give notice to the owner to obtain such supply within a time specified. Section 64. All existing *public* cisterns, pumps, wells, reservoirs, conduits, aqueducts and works used for the gratuitous supply of water to the inhabitants of the district of any Local Authority, *shall* vest in and be under the control of such authority, and such authority *may* cause the same to be maintained and plentifully supplied

with pure and wholesome water, or *may* substitute, maintain, and plentifully supply with pure and wholesome water, other such works equally convenient. Section 70. Gives power to close polluted wells, etc.

PUBLIC HEALTH (WATER) ACT, 1878.—Section 3 amplifies but does not repeal Section 62 of the 1875 Act. Section 6. Provides that houses erected or rebuilt shall not be occupied without sufficient water supply, and any owner who occupies a house or causes or permits it to be occupied in contravention of this Section *shall be* liable to a penalty not exceeding ten pounds. Section 7. Directs that it *shall be* the duty of every Rural Sanitary Authority to make periodical inspections of their water supply.

I have given these Sections pretty fully from “Lumley’s Public Health Act,” and though they seem to give plenty of power, still, in practice, there are frequently many difficulties and delays in *furnishing* houses with water, even by short extensions from existing mains, which make the “work done” in that connection appear small.

The accompanying diagram shows the present state of the District as regards its water supply. The diagram represents the parishes of the *Basford Union*, clustered round Nottingham, the parishes of the District Council, only being coloured. Of these, all coloured blue have a supply of Nottingham Corporation water available. Of those coloured green, Bestwood Park is supplied on the constant system, with water pumped up from the New Red Sand Stone by the Bestwood Colliery Company. Newstead Colliery Company supply their village in the same way, but the water is from the Magnesian Limestone. Annesley is supplied through Kirkby, with water from the Sutton Waterworks (New Red Sand Stone), and Selston has its own waterworks, and derives its supply from the Magnesian Limestone formation; these supplies are all from deep wells or bore-holes, and are safeguarded and free from contamination at their source.

The remainder of the District (coloured red) is supplied from badly constructed and unprotected shallow wells, or rain-water tanks polluted streams and canals, and the supply is at times short in quantity, and bad in quality. This description also applies to certain portions of those parishes coloured blue and green.



Diagram of the Water Supply of the Basford Rural District.

Blue--Nottingham Corporation Water.

Green--Independent supplies pumped from deep wells or boreholes and supplied through pipes on the constant system.

Red--Supplies from shallow wells, for the most part liable to contamination.

A plentiful supply of pure and *wholesome* water is necessary for the health not only of persons, but also of cattle, especially cows kept for the purpose dairy-farming, and for the cleansing of utensils used in that trade, and it is your duty to provide at a *reasonable distance* an *available* supply, if it can be done at a *reasonable* cost. The difficulty is to define the meaning of the words "wholesome," "reasonable," and "available," in such a way as to meet the needs of all cases, and satisfy all concerned.

Unfortunately there is no law, and you possess no bye-law giving you power over the sinking of wells; you can however, sink public *tube* wells yourselves, properly safeguarded against pollution, and thus get out of the difficulty; it remains for you to take action in the matter, and not wait for an epidemic and public opinion to compel you to provide a safe supply.

It is probable that Ruddington will have a supply of water from the Bunter Sand Stone, in due course, as a new bore-hole is about to be made on a private estate, to the east of the village for that purpose. Should the result prove satisfactory as regards quantity and quality of water supply, you will have an opportunity of exercising your powers under Section 51 of the Public Health Act, 1875, and providing for most if not all of your parishes south of the Trent.

The supply to Gotham still continues scanty, and the question is an urgent one, as most of the available supply from Crow Hill, runs to waste, owing to defective pipes. This is the only example in your district of a public water supply obtained from gathering grounds by impounding the springs and conveying the water through pipes to wells. As the gathering grounds are on the tops of hills not subject to much active agricultural processes, it is fair to assume there is little risk of pollution of a serious nature.

THE SEWERAGE OF THE DISTRICT.—Plans for the sewerage and sewage disposal of Selston, New Cossall, and Ruddington have been under your consideration during the whole of the year, but no progress had been made with any of them at its end. The sewerage of Awsworth was started towards the close of the year, and will probably be finished and in working order by the beginning of the coming summer. The outfall sites for all these schemes are on clay land, and no provision has been made for artificial filtration of the tank effluent in any of them. It is needless to add that it is cheaper to put down

artificial filters of almost any kind, than to provide sufficient clay land for the efficient treatment of the tank effluent by irrigation, viz., one acre for every 200 persons. With precipitation and artificial filtration one acre for every 2000 persons will meet the requirements of the Local Government Board. This is a question that you have already partially settled at the Kimberley Outfall Works, where you have allowed me to put down a coal-filter as an experiment, and as it has proved eminently successful, I would suggest that similar filters be added at the other outfall works when they are made. The filter at Kimberley is 18 yards long, 12 yards wide, and $1\frac{1}{2}$ yards deep, and is filled to the depth of 3 feet with coal in assorted sizes. The estimated cost of this filter-bed is £42. This includes labour of digging the bed out of the clay, agricultural and sanitary pipes, cost of coal, and Royalty; the latter is charged at 1/- per cubic yard of coal, and is a first and only charge. The bed is working six hours a day for six days a week, with a day's complete rest on Sundays.

It is claimed for this filter that there is a chemical action as well as a biological one, and that the filtrate from it is well within the standard of purity laid down by the Rivers Pollution Commissioners.

The want of sewerage schemes and means of sewage disposal for Colwick, Gedling, and Burton Joyce is becoming urgent, but by your agreement with the Nottingham City Corporation you will be able to get out of the difficulty of disposal, provided the proposed extension of Stoke Sewage Farm be carried out. It is for you to consider the advisability of having sewerage schemes prepared for these parishes at an early date, so that, allowing for the delay, which from experience you may expect, they will be ready when Stoke Farm will be able to receive their sewage. I believe that building operations on a large scale would be carried out in these parishes if they were properly sewered; in one, plans for over 80 houses have recently been before your Committee, and building operations have commenced; and large plots of land are on sale for building purposes.

The sewage farm at Newstead continues to do its work well. It is probable it will need enlarging soon, as the Great Central Railway Company contemplate the erection of some 200 houses on a site between the sewage farm and Newstead Village.

ADOPTIVE ACTS.—In pursuance of Article 18, Sub-section 5, of the General Order of the Local Government Board, dated 23rd March,

1891, I advised you on two occasions to adopt the Infectious Diseases Prevention Act of 1890, and certain sections of the Public Health Amendment Act of 1890. As a result of that advice a Committee was appointed to consider the question, and each member was furnished with copies of the Acts. Up to the present no meeting has been held.

BYE-LAWS.—Owing to the many attempts to evade certain of the bye-laws which safeguard the health of the public, but reduce the profits of the builder, a Committee has been appointed to supervise and inspect plans, and enforce the bye-laws, thus strengthening the hands of the Surveyors and making their work in that direction easier. During the year 180 plans of houses have been passed by the Surveyors.

CANAL BOATS ACT.—The Canals (including the river Trent) under the supervision of your Officers are 23 miles long, and have 20 wharves and 32 locks. Heavy goods such as coal, bricks, ironstone, and timber are carried in the boats, but there is no traffic in offensive cargoes. Portions of the Canals were closed for a time for repairs.

During the past year 47 boats have been inspected, and their condition generally has been satisfactory, no cases of Infectious Disease, nor of over-crowding having occurred, and the boatmen have always given every facility for inspection.

Owing to the localized character of the traffic on these Canals, there is very little fresh to report on from year to year. Probably the traffic, if anything, is decreasing.

PUBLIC HEALTH ACT, 1875.—The following Local Government Board Inquiries were held during the year under Section 293 of the Act, on application by the Council for sanction to borrow money :—

Ruddington	... April 7	...Sewerage and Sewage Disposal	... £7,000
Selston	... May 6	... „ „ „	... 7,250
Awsworth	... July 9	... „ „ „	... 3,000
Selston	... Oct. 27	...Water Supply	... 1,500

THE DAIRIES, COWSHEDS, AND MILKSHOPS ORDER, 1885, and AMENDING ORDER, 1886.—Under these orders it is your duty to supervise the milk trade in your district, and carry out certain Regulations contained in them, viz. :—Inspection of cattle in dairies, lighting and ventilation, cleansing, drainage, and water-supply ; precautions against

infection and contamination. Every dairyman, cowkeeper, or purveyor of milk should be registered, and you *shall* from time to time give public notice of registration being required, and the mode of such registration.

The Dairies and Cowsheds in your District have been inspected by your Officers, who report that the milk trade has been carried on in a satisfactory manner, and no case of infectious disease traced to it. Two cases of Enteric Fever occurred on the premises of milk dealers; the water-supply was found to be contaminated with sewage; fresh water-supplies were obtained and the outbuildings put in a satisfactory condition.

FACTORY AND WORKSHOPS ACT, 1895.—I have had one notice from H.M.'s Inspector under this Act, viz., inadequate ventilation in a workshop at Ruddington. The owner has complied with my instructions to put in three Tobin's Tubes and two Boyle's Extraction Valves.

CEMETERIES.—I reported to you on the over-crowded condition of Bunny Churchyard, and the matter was referred to the Home Office. As this Churchyard is used in common for the inhabitants of Bunny and Bradmore, a new Cemetery on a site somewhere midway between the villages would meet the wishes of the people.

ELEMENTARY SCHOOLS.—I found it necessary to certify for the following Schools to be closed for the times stated during the year:—

Trowell	...for Measles	...	...Jan. 11 to Feb. 1.
Kimberley	... „ „	and Whooping Cough	...Jan. 17 to March 8.
Calverton	... „ Whooping Cough		...March 22 to May 3.
Thrumpton	... „ „	„	...April 27 to June 8.

SPECIAL REPORTS.—In addition to the ordinary monthly reports, I have reported to you on the following subjects during the year.—

A Nuisance at Watnall.

Colwick Sewerage.

Outbreak of Enteric Fever at Newstead.

Proposed Extension of Stoke Sewage Farm.

PART II.

THE DERBYSHIRE PORTION OF THE DISTRICT.

The Derbyshire portion of your District consists of the Parishes of Codnor-cum-Loseoe, Codnor Park, and Shipley.

The following Table shows the Sub-District in which each is placed, with its area and population, recorded and estimated.

Sub-District.	Parishes included.	Acres.	Population, Census 1891.	Population, Estimated to middle of '97.
1. Greasley ...	Codnor-cum-Loseoe .	1931	3848	4006
	Codnor Park ...	1458	1077	1080
2. Ilkeston ...	Shipley ...	2111	689	667
	Totals ...	5500	5614	5753

All the Parishes are in No. 1 Division, and under the sanitary supervision of Mr. Darley, of Kimberley.

Births.—177 births were registered during the year. Their distribution between the parishes was as follows:—

		LEGITIMATE.		ILLEGITIMATE.	
		Male.	Female.	Male.	Female.
Codnor ...	61 ...	77	...	1 ...	2
Codnor Park ...	12 ...	7	...	1 ...	0
Shipley ...	10 ...	5	...	0 ...	1
Totals ...	83	89		2	3

The natural increase was 94, and the birth-rate 30·7 per 1000 living.

Deaths.—The corrected number of deaths is 83. This includes 2 deaths of persons belonging to the parishes who died outside the District, but does not include 16 deaths occurring within the District among persons not belonging thereto. This gives a death-rate for the District of 14·4. The deaths were distributed among the parishes as follows :—

		Male.		Female.
Codnor	... ..	35	...	18
Codnor Park	...	15	...	9
Shipley	... ..	4	...	2
		—		—
		54		29

The Infant Death-rate was 152·5 per 1000 registered births ; 325·3 per 1000 total deaths ; and 4·6 per 1000 living.

Deaths in Public Institutions.—These amounted to 18, viz. :—16 in Ilkeston Hospital and 2 in Basford Workhouse.

Inquests.—Coroner's Inquests were held in 18 cases, including 9 in the Ilkeston Hospital, Shipley.

The following were returned as causes of death :—

Crush in Colliery	... 1	Run over by train	... 3
Burns and Scalds	... 3	Heart Disease	... 2
Drowned	... 4	Fall from pony	... 1
Fractured skull	... 1	Suicide by drowning...	1
Natural causes	... 2		—
			18

Uncertified Deaths.—Four deaths have been registered as “not certified.” Two occurred in Codnor and two in Codnor Park. Two were attributed to heart disease and two to convulsions.

Zymotic Diseases.—Nine deaths were registered from the principal Zymotic Diseases during 1897. The following is a distribution of them between the two parishes affected :—

	Scarlet Fever.	Diph- theria.	Enteric Fever.	Puerperal Fever.	Whooping Cough.	Diarrhœa.	Measles.
Codnor ..	2	0	0	0	3	2	0
Codnor Park	0	0	0	0	1	0	1
Totals ...	2	0	0	0	4	2	1

The Zymotic Death-rate derived from the above-mentioned diseases was 1.56 per 1000, and compares favourably with the 3.6 per 1000 of 1896.

Notifiable Zymotic Diseases.—The diseases notified in the District are those enumerated in the Infectious Diseases Notification Act, 1889, which has been in force since January 1st, 1890.

The following Table gives the monthly occurrence of these diseases :—

Cases of Notifiable Diseases occurring in each month of 1897.

Month.	Scarlet Fever.	Diphtheria & Membr. Croup.	Enteric Fever.	Erysipe- las.	Con- tinued Fever.	Puerpe- ral Fever.	Small- pox.	Cholera.	Totals.
January -	1	...	1	...	...	...	...	...	2
February -	2	...	...	2	...	...	...	...	4
March -	8	...	1	3	...	...	..	...	12
April -	10	1	...	2	...	...	...	...	13
May -	2	...	...	3	...	...	...	...	5
June -	...	...	...	2	...	...	...	...	2
July -	1	1	...	...	...	...	...	.	2
August -	3	...	...	1	...	...	...	...	4
September -	23	...	...	...	...	...	...	...	23
October -	11	1	...	1	...	...	...	...	13
November -	10	...	1	1	...	...	...	...	12
December -	4	...	...	1	...	...	...	...	5
Totals -	75	3	3	16	0	0	0	0	97

The following Table gives the cases notified, and the deaths during the last two years :—

	Scarlet Fever.	Diphtheria & Membr. Croup	Enteric Fever.	Erysipelas.	Continued Fever.	Puerperal Fever.	Small-pox.	Cholera.	Totals.
Notified Cases in 1896	7	10	4	12	1	1	...	...	35
„ „ 1897	75	3	3	16	...	...	...	...	97
Deaths from Notifi- able Diseases in 1896	...	4	1	...	...	1	...	...	6
„ „ 1897	2	...	...	1	...	...	..	...	3

The cost of notification during the year has amounted to £12 2s. 6d., or an average of about £2 2s. 0d. per 1000 of the population.

Disinfection is carried out on the same lines as in the Nottinghamshire portion of the District; 68 cards were sent out, and 33 houses disinfected.

Scarlet Fever.—75 cases were notified, and two in Codnor proved fatal. The disease was prevalent in Codnor during the first half of the year, and 11 of the cases were isolated in the Basford Sanatorium. After a lull in the summer months it broke out afresh in the parish; this time extending through Loscoe to Codnor, and also appearing in Golden Valley. Five of the earlier cases in Loscoe were removed to the Sanatorium, but without any effect on the progress of the epidemic which, fortunately, was of a mild character.

Diphtheria.—Three cases were notified and none proved fatal. The parish of Codnor is to be congratulated on the diminished number of cases of this disease, which in recent years has been so prevalent and so fatal there.

Enteric Fever.—Three cases were notified and all recovered. It is remarkable that very few cases of this disease occur in Codnorum-Loscoe—a parish eminently suited for the propagation and fostering of the disease—with its imperfect, and more than suspicious water supply, and the primitive manner in which its sewage is disposed of. From recent experience of epidemics of the disease in the country, the sooner the people of Codnor realize the necessity of improving both, the better.

Erysipelas.—16 cases were notified, and one at Codnor Park proved fatal.

Non-Notifiable Zymotic Diseases.—

Measles.—The epidemic of this disease which was prevalent in the District at the end of 1896 gradually died out. During the first quarter only one death was certified, viz., at Codnor Park.

Whooping Cough.—This disease was epidemic in the District during the first quarter of the year, and followed closely on the course of the Measles epidemic. Four deaths occurred in infants, and all the cases were complicated with Bronchitis and Pneumonia. Two of the deaths occurred in Loscoe, one in Codnor, and one in Golden Valley.

Diarrhœa.—Two deaths from Diarrhœa occurred in Codnor. Both were infants under six months of age.

Water Supply.—Part of Codnor Park is supplied from the Butterley Company's reservoir on the constant system, and the water is fair in quality and ample in quantity. It is probable, however, that this supply is liable to pollution at its source. The rest of Codnor Park, Codnor-cum-Loscoe, and Shipley is supplied from wells, badly constructed and so placed with regard to possible sources of pollution, that it is more than probable that the water is contaminated and doubtful in quality. A proper water-supply for the parish of Codnor is a question of urgency.

The Sewerage of the District is one that demands immediate attention. Whatever may be the result of the meeting of the "Boundaries Committee," and the ultimate destination of the "Rural District of Codnor," this question claims first place. At present the sewage in Codnor Park, where possible, is delivered into the Cromford Canal; in Codnor-cum-Loscoe, the road-side ditches are requisitioned, and eventually the brooks. It has been a vexed question for years, and still continues so, and when the final decision of the Committee is known, should the parishes remain under the jurisdiction of this Council, your first duty must be the sewerage and sewage disposal of Codnor-cum-Loscoe.

I have the honour to be, Gentlemen,

Your obedient Servant,

G. B. WRAY.

115, WATERLOO CRESCENT,
NOTTINGHAM,

February, 1898.



(A) TABLE OF DEATHS during the Year 1897, in the Nolls. portion of the Basford Rural District, classified according to Diseases, Ages, and Localities.

[illegible]

TABLE I.

NOTTS. PORTION.

*Showing the Population, Inhabited Houses, Marriages, Births, and Deaths,
for the year 1897, and 9 preceding years.*

The Year.	Estimated Population.	No. of Inhabited Houses.	Marriages	Registered Births	Corrected No. of Deaths			Deaths in Public Institutions
					Total at all Ages	Under 1 year.	Under 5 years.	
1897	38330	7864	592	1143	603	164	230	15
1896	42920	8864	540	1382	650	210	279	24
1895	54934	10937	624	2013	913	295	418	34
1894	53872	10725	640	1808	704	251	338	26
1893	53011	10553	636	2009	836	300	396	24
1892	52165	10384	681	1914	954	326	485	35
1891	53627	10755	671	1988	869	285	366	32
1890	52000	9828	751	1846	935	311	123	25
1889	52000	9828	592	1821	815	258	110	90
1888	51957	9828	680	1757	775	244	103	79

TABLE II.

NOTTS. PORTION.

Showing the Annual Birth and Death Rates, Death Rates of Children, and Proportion of Deaths in Public Institutions in a Thousand Deaths, for the year 1897, and preceding years.

In Year.	Birth rate per 1000 of Population.	Corrected death Rate per 1000 of Population.	Deaths of Children under 1 year per 1000 registered Births.	Deaths of Children under 1 year per 1000 of Total Deaths.	Deaths of Children under 5 years per 1000 of Total Deaths.	Deaths in Public Institutions per 1000 of Total Deaths.
1897	29.82	15.73	143.48	271.00	381.42	24.87
1896	32.20	15.14	151.95	323.00	429.23	36.92
1895	36.64	16.62	146.54	323.11	457.83	37.23
1894	33.56	13.06	138.82	356.53	480.11	36.93
1893	37.90	15.77	149.32	358.85	473.68	20.06
1892	36.69	18.28	170.03	341.71	508.38	36.68
1891	37.50	16.39	143.36	327.96	421.17	36.8
1890	35.50	17.90	168.47	332.62	464.17	26.7
1889	35.00	15.68	142.22	316.56	451.53	110.42
1888	33.80	14.90	137.73	312.25	441.27	101.93
Average of 10 years.	34.86	15.95	149.19	326.36	450.88	46.85

*Summary of Sanitary Work done in the Inspector of Nuisances' Department
during the Year 1897, in the Derbyshire portion of the Rural
Sanitary District of Codnor.*

				Inspections and Observations made.	Informal Notices served by Inspector	Legal Notices by Authority.	Nuisances Abated after Notice.
Dwelling Houses and Schools.	{ Foul Conditions ... ..	...	...	...	...	...	...
	{ Structural Defects...	...	...	...	...	...	...
	{ Overcrowding .. ..	...	...	1	1	...	1
	{ Unfit for Habitation .. ..	...	...	3	3	...	3
	Lodging Houses ... ..	...	...	...	...	...	...
	Dairies and Milkshops .. ..	...	...	...	...	...	...
	Cow Sheds ... ..	...	...	...	...	...	...
	Bakehouses ... ..	...	...	...	...	...	...
	Slaughter-houses ... ..	...	...	1	1	...	1
	Canal Boats ... ..	...	...	...	...	...	...
House Drainage	{ Ashpits and Privies .. ..	...	...	17	...	...	17
	{ Deposits of Refuse and Manure .. ..	...	...	9	9	...	9
	{ Water-Closets ... ..	...	...	...	...	...	...
	{ Defective Traps ... ..	...	...	4	...	...	...
	{ No Disconnection ... ..	...	...	...	...	...	...
	{ Other Faults ... ..	...	...	...	...	...	...
	Water Supply ... ..	...	...	2	2	...	2
	Pigsties ... ..	...	...	...	...	...	...
	Animals improperly kept .. ..	...	...	2	2	...	2
	Offensive Trades ... ..	...	...	...	...	...	...
	Smoke Nuisances ... ..	...	...	...	...	...	...
	Other Nuisances ... ..	...	...	...	...	...	...
	TOTALS ... ..	...	...	39	18	...	35

NOTE.—Where an inspection or notice embraces more than one defect, it may be enumerated separately as regards each such defect.

Seizures of unwholesome Food ... ..	...	...	} None.
Samples of Food taken for Analysis ... ..	...	...
„ „ found Adulterated ... ..	...	...	} Two
„ of Water taken for Analysis ... ..	...	...
„ „ condemned as unfit for use ... ..	...	...	} None.

PRECAUTIONS AGAINST INFECTIOUS DISEASE.

Lots of Infected Bedding Stoved or Destroyed ... ..	...	None.
Houses Disinfected after Infectious Disease	33	
Schools ... ..	...	None.
Method of Disinfection adopted .. ..	...	Sulphurous Acid Fumigation
Prosecutions for not Notifying Existence of Infectious Disease ... ..	...	} None.
Convictions „ „ „ „ „ .. ..	...
Prosecutions for Exposure of Infected Persons or Things .. ..	...
Convictions „ „ „ „ „ .. ..	...

Has Infectious Diseases Prevention Act, 1890, been adopted ?	...	No.
Has Public Health Amendment Act, 1890, been adopted ?	...	No.

COUNTY OF DERBY.

(A) *TABLE OF DEATHS during the Year 1897, in the Rural Sanitary District of Codnor, classified according to Diseases, Ages, and Localities.*

NAMES OF LOCALITIES adopted for the purpose of these Statistics: Public Institutions being shown as separate localities.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																								
	At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	Aged under 5 or over 5.	1 Smallpox.	2 Scarlatina.	3 Diphtheria.	4 Membranous Croup.	5 Typhus.	6 Enteric or Typhoid.	7 Continued Fevers.	8 Relapsing Fevers.	9 Puerperal	10 Cholera.	11 Erysipelas.	12 Measles.	13 Whooping Cough.	14 Diphtheria and Scarlatina.	15 Rheumatic Fever.	16 Ague.	17 Phthisis.	18 Bronchitis, Pneumonia, and Pleurisy.	19 Heart Disease.	20 Injuries.	21 All Other Diseases.	22 Total.		
Codnor ...	53	20	9	...	1	9	14	{ Under 5 5 upwds.	...	2	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	...	6	...	...	...	16	29
Codnor Park	25	4	4	...	...	9	8	{ Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	2	5	...	...	13	24
Shipley ...	7	3	...	...	1	2	1	{ Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	3	8
TOTALS	85	27	13	...	2	20	23	{ Under 5 5 upwds.	...	2	...	...	...	...	...	...	...	...	1	...	...	5	2	...	...	...	8	7	1	22	40	
Deaths occurring outside the district among persons belonging thereto.	2	...	...	...	..	1	1	{ Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2
Deaths occurring within the district among persons not belonging thereto	16	...	2	2	1	9	2	{ Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	7	...	14

COUNTY OF DERBY.

(B) *Table of Population, Births, and of new cases of Infectious Sickness, coming to the knowledge of the Medical Officer of Health, during the Year 1897, in the Rural Sanitary District of Codnor; classified according to Diseases, Ages, and Localities.*

NAMES OF LOCALITIES adopted for the purpose of these Statistics: Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5.	NEW CASES OF SICKNESS IN EACH LOCALITY COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.										NUMBER OF SUCH CASES REMOVED FROM THEIR HOMES IN THE SEVERAL LOCALITIES FOR TREATMENT IN ISOLATION HOSPITAL.														
	Census 1891.	Estimated to middle of 1897.			Smallpox.	Scarlatina.	Diphtheria.	Membranous (roup.	Typhus.	Enteric or Typhoid.	7 Continued.	8 Relapsing.	9 Puerperal.	Cholera.	Erysipelas.	1	2	3	4	5 Typhus.	6 Enteric or Typhoid.	7 Continued.	8 Relapsing.	9 Puerperal.	Cholera.	Erysipelas.	10	11	12	13
Codnor	3848	4006	141	{ Under 5 5 upwds	...	22	...	...	...	...	...	...	...	...	2	...	5	...	...	...	...	...	...	...	...	...	...	...	...
Codnor Park	1077	1080	20	{ Under 5 5 upwds	...	45	2	...	...	...	...	...	...	...	13	...	11	...	...	...	...	...	...	...	...	...	...	...	...
Shipley	689	667	16	{ Under 5 5 upwds	...	4	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	5614	5753	177	{ Under 5 5 upwds	...	26	3	...	...	...	3	...	...	...	2	...	5	...	...	...	...	...	...	...	...	...	...	...	...

TABLE No. III.

BASFORD RURAL DISTRICT.

NOTTS. PORTION.

Deaths Registered from all Causes during the Year 1897.

	AGES.											Total.
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 & up- wards	
I. SPECIFIC FEBRILE, OR ZYMOTIC DISEASES	25	20	6	12	3	2	...	2	3	4	...	77
II. PARASITIC DISEASES	2	...	...	...	...	...	...	...	...	...	...	2
III. DIETIC DISEASES .....	...	...	...	...	...	...	...	...	...	...	...	0
IV. CONSTITUTIONAL DISEASES	6	11	10	9	12	12	10	22	10	4	...	106
V. DEVELOPMENTAL DISEASES	28	...	...	...	...	...	...	...	2	13	4	47
VI. LOCAL DISEASES	70	31	7	6	17	24	19	40	56	31	2	303
VII. DEATHS FROM VIOLENCE	1	2	2	9	2	6	1	1	1	2	...	27
VIII. DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES	32	2	...	...	1	...	1	2	...	3	...	41
TOTALS	164	66	25	36	35	44	31	67	72	57	6	603

1.—SPECIFIC FEBRILE, OR ZYMOTIC DISEASES.												
1.—MIASMATIC DISEASES.												
Smallpox, Vaccinated, Unvaccinated ...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	3	...	...	...	...	...	...	...	...	...	...	3
Searlet Fever .....	...	1	1	...	...	...	...	...	...	...	...	2
Typhus .....	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	12	12	1	...	...	...	...	...	...	...	...	25
Diphtheria and Membranous Croup	1	1	2	...	...	...	...	...	...	...	...	4
Ill-defined Fever .....	...	...	...	...	...	...	...	...	...	...	...	...
Enteric or Typhoid Fever .....	...	...	2	10	2	2	...	...	...	...	...	16
Influenza .....	...	...	...	1	...	...	...	...	1	...	...	2
2.—DIARRHOEAL DISEASES.												
Simple Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa, Dysentery	12	3	...	...	...	...	...	1	1	3	...	20
3.—MALARIAL DISEASES												
4.—ZOOGENOUS DISEASES.	...	...	...	...	...	...	...	...	...	...	...	...
5.—VENEREAL DISEASES												
Syphilis .....	...	...	...	...	...	...	...	1	...	...	...	1
Gonorrhœa, Stricture of Urethra .....	...	...	...	...	...	...	...	...	...	...	...	...
6.—SEPTIC DISEASES												
Erysipelas .....	...	...	...	...	...	...	...	...	...	1	...	1
Pyæmia, Septicæmia .....	...	...	...	...	...	...	...	...	1	...	...	1
Puerperal Fever .....	...	...	...	1	1	...	...	...	...	...	...	2

Deaths Registered from all Causes during the Year 1897.

	AGES.											
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 & up- wards	TOTAL.
10.—DISEASES OF BONES AND JOINTS.												
Caries, Necrosis	1	..	...	...	...	...	...	...	...	1
Arthritis, Ostitis, Periostitis	1	...	...	...	...	...	...	...	1
Other Diseases of Bones and Joints....	1	...	...	1
11.—DISEASES OF INTEGUMENTARY SYSTEM.												
Carbuncle, Phlegmon	1	...	...	1
Other Diseases of Integumentary System
VII.—DEATHS FROM VIOLENCE.												
1.—ACCIDENT OR NEGLIGENCE.												
Fractures and Contusions	1	...	...	...	...	...	...	...	...	1
Gunshot Wounds
Cut, Stab
Burn, Scald	1	1	...	..	2	...	...	...	...	...	...	4
Poison	1	...	...	...	1
Drowning	1	2	5	...	2	...	...	...	...	...	10
Suffocation	1	...	...	...	...	...	...	1
Otherwise	3	1	...	...	...	...	1	...	...	5
2.—HOMICIDE.												
Manslaughter
Murder
3.—SUICIDE.												
Gunshot Wounds
Cut, Stab	1	...	...	...	...	1
Poison
Drowning	1	1	1	...	1	...	...	...	4
Hanging
Otherwise
4.—EXECUTION.												
Hanging
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.												
Dropsy
Debility, Atrophy, Inanition	30	2	...	...	...	...	...	...	...	...	...	32
Mortification
Tumour
Abscess
Hæmorrhage	1	...	...	...	...	1
Sudden Death (cause not ascertained)..
Causes not Specified or Ill-defined	2	...	...	1	...	1	1	...	3	...	...	8

SUMMARY OF TABLE III.

I.—Specific Febrile, or Zymotic Diseases.		No. of Deaths	
1. Miasmatic Diseases	...	...	52
2. Diarrhoeal	...	...	20
3. Malarial	...	...	...
4. Zoogenous	...	...	...
5. Venereal	...	...	1
6. Septic	...	...	4
II.—Parasitic Diseases	...	...	2
III.—Dietic Diseases	...	...	...
IV.—Constitutional Diseases	...	...	106
V.—Developmental Diseases	...	...	47
VI.—Local Diseases.	...	...	...
1. Diseases of Nervous System	...	...	63
2. Diseases of Organs of Special Sense	...	...	...
3. Diseases of Circulatory System	...	...	68
4. Diseases of Respiratory System	...	...	114
5. Diseases of Digestive System	...	...	34
<i>Carried forward</i>		...	511
I.—Specific Febrile, or Zymotic Diseases.		No. of Deaths	
<i>Brought forward</i>		...	511
VI.—Local Diseases—continued.		...	...
6. Diseases of Lymphatic System	...	...	...
7. Diseases of Gland-like Organs of uncertain use	...	...	...
8. Diseases of Urinary System	...	...	8
9. Diseases of Reproductive System	...	...	...
(a). Diseases of Organs of Generation	...	...	...
(b). Diseases of Parturition	...	...	2
10. Diseases of Bones and Joints	...	...	3
11. Diseases of Integumentary System...	...	...	1
VII.—Violence.		...	...
1. Accident or Negligence	...	...	22
2. Homicide	...	...	...
3. Suicide	...	...	5
4. Execution	...	...	...
VIII.—Ill-defined and not specified causes		...	41
Total		...	603

TABLE IV.
NOTTS. PORTION.

Showing the number of Deaths at all ages in 1897 from certain groups of Diseases, and proportion to 1000 of Population and to 1000 Deaths from all causes; also the number of Deaths of Infants under one year of age from other groups of Diseases; and proportion to 1000 Births and 1000 Deaths from all causes under one year.

Division 1. All Ages.	Total Deaths.	Deaths per 1000 of population at all ages.	Deaths per 1000 of Total Deaths at all ages.
1. Principal Zymotic } Diseases }	68	1·77	112·76
2. Pulmonary Dis- } eases, other than } Phthisis }	114	2·97	189·05
3. Principal Tuber- } cular Diseases... }	56	1·46	92·86
Division 2. Infants under 1 year.	Total Deaths.	Deaths per 1000 of Births.	Deaths per 1000 of Total Deaths under one year.
4. Wasting Diseases...	59	51·61	359·75
5. Convulsive Diseases	35	30·62	213·41

Note.—1. Includes Small Pox, Scarlet Fever, Diphtheria, Typhus, Enteric and Simple Continued Fevers, Whooping Cough, Measles, and Diarrhœa.

2. All Respiratory Diseases except Phthisis.

3. Phthisis, Scrofula, Tuberculosis, and Tabes Mesenterica.

4. Marasmus, Atrophy, Wasting, Debility, Inanition, Premature Birth, and Improper Feeding.

5. Hydrocephalus, Infantile Meningitis, Convulsions, and Dentition.

TABLE V.
NOTTS. PORTION.

Showing the number of Deaths from the principal Zymotic Diseases in the 10 years 1887 to 1896, and in the year 1897.

DISEASE.	1896.	1895.	1894.	1893.	1892.	1891.	1890.	1889.	1888.	1887.	Annual average of 10 years.	Proportion of deaths to 1000 deaths in 10 years, 1887-1896.	Total deaths in 1897.	Proportion of deaths to 1000 deaths in 1897.
Small Pox	0	0	0	2	0	0	0	0	0	0	·2	·24	0	0·0
Measles	22	20	3	5	39	6	51	2	8	15	17·1	20·83	3	4·97
Scarlet Fever	2	6	7	7	17	19	6	10	8	4	8·6	10·48	2	3·31
Diphtheria	6	6	7	8	5	3	1	1	6	6	4·9	5·97	4	6·63
Whooping Cough.	12	15	11	21	35	13	14	21	20	2	16·4	19·98	25	41·45
FEVER. { Typhus	0	0	0	0	0	0	0	0	0	0	0·0	0·0	0	0·0
Enteric	9	14	6	17	15	13	19	26	12	18	14·9	18·15	16	26·53
Simple Contd.	0	0	1	1	0	0	2	0	0	0	·4	·48	0	0·0
Diarrhœa	9	34	9	46	27	15	29	42	40	27	27·8	33·87	18	29·86
TOTALS... ..	60	95	44	107	138	69	122	102	94	72	90·3	110·00	68	112·75

THE SUB-DISTRICTS.

NOTTS. PORTION.

Birth and Death
Rates of Sub-
districts.

The following table of estimated populations, with birth rates and death rates, both general and particular, for the several divisions of the district during the past 5 years, will be found useful for purposes of comparison. I may point out that the infant rates represent the annual number of deaths of infants under one year, 1stly, to every 1000 deaths, and 2ndly, to every 1000 births, and that all the other rates represent annual amounts per 1000 of population estimated to be living at the mid-year.

Sub-Districts.	Estimated Population.	Birth Rate.					Death Rate.					Infant Death Rate.										Zymotic Death Rate.						
		Per 1000 Births.					Per 1000 Deaths.					Per 1000 Births.										Per 1000 Deaths.						
		1897.	1896.	1895.	1894.	1893.	1897.	1896.	1895.	1894.	1893.	1897.	1896.	1895.	1894.	1893.	1897.	1896.	1895.	1894.	1893.	1897.	1896.	1895.	1894.	1893.		
Greasley	20730	31.9	35.5	40.11	36.90	41.5	15.0	15.2	16.2	13.0	16.6	318.3	346.5	363.9	397.8	383.9	149.3	148.8	147.3	140.9	153.5	1.8	1.9	2.0	1.9	2.0	.7	2.4
Ilkeston	1603	27.4	27.5	29.68	30.69	34.1	15.5	16.6	13.9	14.4	8.5	320.0	404.5	129.0	258.0	500.0	181.8	245.9	60.6	121.2	125.0	1.2	0.4	2.7	0.4	2.7	.4	0.4
Basford	618	16.1	9.6	25.39	11.0	21.8	12.9	16.0	12.7	3.1	15.6	125.0	100.0	125.0	500.0	100.0	100.0	166.6	62.5	142.8	71.4	0.0	0.0	1.5	0.0	0.0	0.0	0.0
Bulwell	3293	31.8	29.7	32.4	35.1	36.6	14.2	14.4	15.6	17.0	9.6	319.1	468.0	440.0	351.8	300.0	142.8	226.8	211.5	171.1	78.9	1.2	0.3	1.2	0.3	1.2	.9	0.9
Arnold	4351	28.9	33.2	36.1	31.4	31.8	21.8	13.5	19.1	15.3	14.5	189.4	304.3	301.2	313.4	312.5	142.8	144.8	159.2	153.2	142.8	3.9	1.1	1.3	1.3	1.3	1.3	1.3
Carlton	2575	22.9	18.0	18.0	18.2	24.8	13.2	13.2	11.6	10.3	12.0	117.0	121.2	206.9	160.0	214.2	84.7	38.8	133.3	90.9	103.4	1.5	0.4	0.0	0.4	0.0	.4	0.8
Willford	5160	26.3	28.6	28.1	22.2	27.9	16.0	14.7	18.3	10.5	19.1	216.8	210.5	200.0	200.0	300.0	132.3	108.1	130.1	94.8	273.9	0.9	0.9	1.5	0.9	1.5	.7	1.1

METEOROLOGICAL

(As supplied Weekly and Monthly to the

Taken at Nottingham, at a Station 214·32 feet above mean or half tide

Latitude 52 deg. 57 min. North :

Month.	Pressure of Atmosphere in Month.		Temperature of Air in Month.							Mean Temperature.		Vapour.			Mean degree of Humidity Saturation = 100.
	Mean.	Range.	Highest.	Lowest.	Range.	Mean.			Air.	Dew Point.	Elastic Force.	In a cubic foot of Air.			
						Of all Highest.	Of all Lowest.	Daily Range.				Mean.	Short of Saturation.		
1897.	Inches.	Inches	Degs.	Degs.	Degs.	Degs.	Degs.	Degs.	Deg.	Degs.	Ins.	Gns.	Gns.		
Jan. ...	29·895	1·202	49·2	22·3	26·9	38·1	30·3	7·8	34·5	32·2	0·182	2·1	0·2	91	
Feb. ...	30·042	1·360	56·6	30·3	26·3	45·7	36·7	9·0	41·6	38·7	0·236	2·7	0·3	90	
March ...	29·583	1·478	60·6	27·0	33·6	49·4	37·1	12·3	43·7	37·4	0·223	2·6	0·7	78	
April ...	29·828	1·022	63·5	30·8	32·7	49·6	36·7	12·9	43·6	36·0	0·211	2·5	0·8	74	
May ...	29·954	1·097	67·6	32·0	35·6	56·6	39·9	16·7	48·5	38·7	0·236	2·7	1·2	69	
June ...	29·976	0·916	82·8	42·5	40·3	66·1	49·9	16·2	58·0	51·0	0·375	4·2	1·2	77	
July ...	29·981	0·760	81·1	42·3	38·8	69·3	50·4	18·9	60·2	49·7	0·357	4·0	1·9	68	
Aug. ...	29·768	0·735	87·8	44·3	43·5	69·1	51·4	17·7	60·7	49·8	0·359	4·0	1·9	68	
Sept. ...	29·942	1·195	67·0	34·2	32·8	60·1	44·7	15·4	52·9	45·7	0·308	3·5	1·1	77	
Oct. ...	30·143	1·194	66·8	31·0	35·8	55·4	41·1	14·3	48·3	42·4	0·272	3·1	0·7	81	
Nov. ...	30·158	1·231	57·7	29·3	28·4	49·3	39·1	10·2	44·6	41·6	0·262	3·0	0·4	89	
Dec. ...	29·858	1·548	57·1	23·0	34·1	45·2	35·2	10·0	40·4	36·5	0·216	2·5	0·4	87	

OBSERVATIONS, 1897.

*Registrar-General, Somerset House, London.)**

level at Hull, and 215·00 feet above mean or half tide level at Liverpool.
 Longitude 1 deg. 9 min. West.

Mean Weight of a cubic foot of Air.	Mean Reading of Thermometer.		Wind.							Mean amount of Ozone. 0 to 10	Mean amount of Cloud. 0 to 10	Rain.			
	Maximum in Rays of Sun.	Minimum on Grass.	Mean daily Pressure in lbs. per square foot.	Relative proportion of					Horizontal movement of Air.			N ^o . of days .010 or more fell.	Amount collected	Amount collected, 76 feet above ground.	Evaporation.
				N	E	S	W	Calm.							
Gns.	Deg.	Deg.							Miles.				Inches	Inches	Inches
556.1	51.9	26.7	.4099	13	6	4	8	...	7175	0.16	7.9	19	1.957	1.640	0.583
550.6	61.6	32.4	.2881	4	4	6	14	...	6937	0.46	8.1	13	3.185	2.797	1.509
540.1	87.0	32.2	.8425	3	3	7	18	...	11011	1.13	6.5	19	2.118	1.758	2.728
544.7	91.7	33.0	.6296	13	7	4	6	...	8683	0.77	6.1	14	1.887	1.589	2.534
541.7	104.4	36.5	.4992	13	3	2	13	...	8188	0.90	4.9	11	1.078	.933	3.235
531.3	111.7	47.7	.4255	7	7	3	13	...	6667	0.73	7.0	12	2.488	2.223	4.101
529.3	117.2	47.8	.5660	8	7	1	15	...	7020	0.26	5.4	8	.487	.416	4.656
524.9	115.7	47.9	.4551	1	5	6	19	...	7641	0.42	4.7	14	3.112	2.790	4.660
536.5	99.5	41.6	.5857	6	4	4	16	...	7351	0.36	6.1	15	2.073	1.840	2.649
545.0	85.6	37.1	.3044	8	9	4	10	...	6472	0.22	7.1	7	.887	.790	1.413
549.5	58.5	37.3	.3872	8	8	3	11	...	6918	0.30	8.6	12	1.227	1.020	0.733
548.8	55.4	30.1	.6445	3	6	8	14	...	9974	0.45	7.5	17	3.227	2.759	2.532

* Published by permission of the Nottingham Town Authorities.

RAINFALL REGISTERS.

Month.	Total Depth. Inches.	Greatest Fall in 24 hours. Depth. Date.	Number of Days on which .01 or more rain fell.	Month.	Total Depth. Inches.	Greatest Fall in 24 hours. Depth. Date.	Number of Days on which .01 or more rain fell.
January -	2.46	.50 7th	22	January -	2.21	.42 9th	22
February	3.21	.96 5th	13	February	3.00	.86 5th	14
March -	2.19	.32 27th	18	March -	1.74	.41 14th	16
April -	2.02	.36 17th	17	April -	1.91	.43 11th	14
May -	1.40	.36 29th	13	May -	1.16	.35 31st	11
June -	2.76	.55 8th	13	June -	2.53	.61 28th	11
July -	.58	.21 20th	8	July -	.56	.24 20th	9
August -	2.50	.73 30th	16	August -	2.57	.67 30th	15
September	2.30	.41 5th	15	September	2.25	.44 1st	12
October -	1.06	.45 15th	12	October -	1.04	.52 15th	10
November	1.71	.39 28th	19	November	1.65	.40 28th	15
December	3.42	.88 4th	18	December	2.89	.71 4th	17
TOTAL -	25.61		184	TOTAL -	23.51		166
Beeston Fields, Nottingham. Gauge above ground, 9 in. ; diameter, 5 in. ; above sea level, 206 ft. <i>George Fellows</i>				Strelley Hall, Nottingham. Gauge above ground, 12 in. ; gauge, 5 in. ; above sea level 375 ft. <i>Thomas L. K. Edge</i>			
January -	1.94	0.49 7th	21	January -	1.71	.35 7th	22
February	3.04	0.99 5th	14	February	3.17	.92 5th	17
March -	2.45	0.49 14th	16	March -	2.20	.34 14th	22
April -	2.07	0.52 17th	15	April -	1.58	.35 17th	15
May -	1.33	0.38 31st	12	May -	1.52	.71 29th	12
June -	2.56	0.54 28th	12	June -	1.81	.50 8th	11
July -	0.56	0.21 20th	7	July -	.28	.10 26th	8
August -	2.37	0.58 30th	17	August -	3.12	.75 30th	15
September	2.46	0.56 29th	16	September	1.92	.37 5th	11
October -	1.14	0.47 15th	10	October -	.88	.40 15th	10
November	2.37	0.59 28th	13	November	1.48	.31 28th	18
December	3.57	0.71 4th	17	December	2.19	.60 4th	14
TOTAL -	25.86		170	TOTAL -	21.86	5.70	175
The Colliery, Eastwood, Notts. Gauge above ground, 12 in. ; above sea level 245 ft. <i>Ed. Lindley</i>				Corporation Farm, Stoke Bardolph, Notts. Gauge above ground, 10 ft. ; above sea level, 83 ft. 5 in. <i>A. A. Aris</i>			
January -	2.23	.55 7th	24	January -	1.14	.53 8th	19
February	3.50	1.01 5th	18	February	3.06	.84 5th	12
March -	2.37	.56 14th	17	March -	2.19	.52 15th	17
April -	1.89	.49 17th	17	April -	2.46	.60 20th	16
May -	1.21	.28 29 & 31	12	May -	1.11	.25 30th	11
June -	2.17	.50 8th	11	June -	2.30	.34 21st	9
July -	.42	.11 19 & 20	6	July -	.63	.31 28th	6
August -	3.06	.61 30th	15	August -	2.44	.62 9th	15
September	2.42	.52 1st	14	September	2.68	.81 30th	13
October -	1.32	.55 15th	13	October -	1.04	.40 15th	9
November	2.62	.70 23th	20	November	1.87	.50 14th	15
December	3.45	.67 5th	18	December	4.70	.91 5th	20
TOTAL -	26.66		185	TOTAL -	26.12		
Selston Pumping Station, Kirkby. Gauge above ground, 1 in. ; above sea level, 475 ft. <i>G. I. Fletcher</i>				* Cross Hill, Codnor, Derbyshire. Gauge above sea level, 371.8 ft. ; above ground, 10 in.			

* The rainfall has exceeded the average of the previous eight years by 1.14 in.
The highest amount recorded in any 24 hours was 0.91 on December 5th. *A. F. Pine*

— INDEX. —

	PAGE.
Adoptive Acts	20
Birth and Birth Rates	6—7
Births and Deaths in the Sub-Districts	42
Bye-laws	21
Canal Boats	21
Cancer	8
Cemeteries	22
Comparative Table	15
The Council	2
Dairies and Cowsheds Order	21
Deaths and Death Rates	7—8
Deaths in Public Institutions	8
Derbyshire Portion	23—27
,, ,, Tables	33—35
Diarrhœa	15
Diphtheria	14
Disinfection	13
District, The—Its Constitution, Population, etc.	3—5
Enteric Fever	14
Factories and Workshops Act	22
Infant Mortality	8
Inquests	8
Isolation Hospital	15
Measles	15
Meteorological Observations	44—45
Notification of Infectious Diseases	11—13
Notts. Portion	1—22
Phthisis, etc., Mortality... ..	8
Public Health Act, 1875	17—21
Public Health Water Act, 1878... ..	18
Puerperal Fever	14
Rainfall	46
Scarlet Fever	13
Schools	22
Sewerage	19—20
Special Reports	22
Tables—General	29—43
Uncertified Deaths	9
Water Supply... ..	16—19
Whooping Cough	15
Zymotic Sickness	10—15
Zymotic Mortality	10—13

